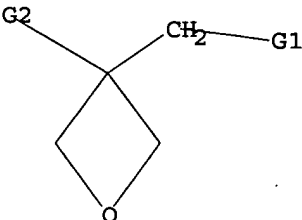


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Structure attributes must be viewed using STN Express query preparation.

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FULL ESTIMATED COST	161.33	161.81

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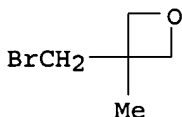
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L3      194 L2

=> s 13 and phase(1w)transfer
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      737312 TRANSFER
      15987 PHASE(1W)TRANSFER
L4      13 L3 AND PHASE(1W)TRANSFER

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L4  ANSWER 1 OF 13  CAPLUS  COPYRIGHT 2005 ACS on STN
AN  2004:169041  CAPLUS
DN  140:424050
TI  Synthesis and cationic photopolymerization of a new fluorinated oxetane
    monomer
AU  Sangermano, M.; Bongiovanni, R.; Malucelli, G.; Priola, A.; Thomas, R. R.;
    Medsker, R. E.; Kim, Y.; Kausch, C. M.
CS  Politecnico di Torino, Dipartimento di Scienza dei Materiali e Ingegneria
    Chimica, Turin, 10129, Italy
SO  Polymer (2004), 45(7), 2133-2139
    CODEN: POLMAG; ISSN: 0032-3861
PB  Elsevier Science Ltd.
DT  Journal
LA  English
AB  A new fluorinated oxetane monomer (FOX) was prepared using a fluorinated
    alc. by phase transfer catalysis in a Williamson ether
    synthesis. The new fluorinated monomer was used in cationic photopolymn.
    as comonomer of 3,3'-[oxydi(methylene)]bis(3-ethyloxetane). The presence
    of the FOX monomer induces a decrease of the glass transition temperature,
    thermal stabilization and an increase of the final oxetane group
    conversion. Completely hydrophobic surfaces were obtained with a
    selective enrichment of the fluorinated comonomer, as confirmed by contact
    angle and XPS anal.
IT  78385-26-9, 3-Bromomethyl-3-methyloxetane
    RL: RCT (Reactant); RACT (Reactant or reagent)
    (reaction with nonafluorohexanol in preparation of fluorinated monomer)
RN  78385-26-9  CAPLUS
CN  Oxetane, 3-(bromomethyl)-3-methyl- (9CI)  (CA INDEX NAME)
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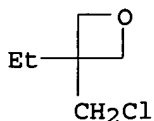
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RE.CNT  25      THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD
          ALL CITATIONS AVAILABLE IN THE RE FORMAT
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L4  ANSWER 2 OF 13  CAPLUS  COPYRIGHT 2005 ACS on STN
AN  2003:750696  CAPLUS
DN  139:245891
TI  Preparation of oxetane ethers from halides and alcohols
IN  Koike, Nobuaki; Ito, Tadakazu
PA  Toa Gosei Chemical Industry Co., Ltd., Japan
SO  Jpn. Kokai Tokkyo Koho, 6 pp.
    CODEN: JKXXAF
DT  Patent
LA  Japanese
FAN.CNT 1
PATENT NO.      KIND      DATE      APPLICATION NO.      DATE
-----
PI  JP 2003267961      A2      20030925      JP 2002-74481      20020318
                                JP 2002-74481      20020318
OS  MARPAT 139:245891
AB  Oxetane ethers, useful as materials for photocurable resins and
    thermosetting resins, are prepared from halides and alcs. in the presence of
    polyalkyl ethers to shorten the reaction time. BuCH2EtCH2OH was added
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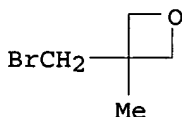
dropwise to a mixture of 3-chloromethyl-3-ethyloxetane, PEG 600, KOH, and xylene at 120° over 1 h while removing H₂O to give 75.5%

3-ethyl-3-(2-ethylhexyloxymethyl)oxetane.

IT 2177-22-2, 3-Chloromethyl-3-ethyloxetane
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of oxetane ethers from halides and alcs. using polyalkyl ethers as **phase-transfer** catalyst)
RN 2177-22-2 CAPLUS
CN Oxetane, 3-(chloromethyl)-3-ethyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 3 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2003:211114 CAPLUS
DN 138:402298
TI Synthesis and characterization of novel oxetane macromonomers
AU Fujiwara, Tomoko; Makal, Umit; Uilk, Janelle; Wynne, Kenneth J.
CS Chemical Engineering Department, Virginia Commonwealth University, Richmond, VA, 23284, USA
SO Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (2003), 44(1), 785
CODEN: ACPPAY; ISSN: 0032-3934
PB American Chemical Society, Division of Polymer Chemistry
DT Journal; (computer optical disk)
LA English
AB To obtain various surface properties, many kinds of macromonomers with low glass transition temps. (T_g) have chemical architected as soft blocks in elastomers and thermoplastics. In this work, novel oxetane macromonomers were prepared and characterized. The monomer, 3-(Methoxyethoxyethoxymethyl)-3-methyloxetane (ME2Ox) was synthesized using **phase transfer** catalyst (PTC) process. The ME2Ox macromonomer and Functional Macromonomers comprising hydrophilic (methoxyethoxyethoxy) and hydrophobic (penta-, hexafluoroethoxy) pendant groups (ME2Ox/FOx macromonomer) in an alc. terminated were synthesized by cationic ring opening polymerization
IT 78385-26-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis and characterization of novel oxetane macromonomers)
RN 78385-26-9 CAPLUS
CN Oxetane, 3-(bromomethyl)-3-methyl- (9CI) (CA INDEX NAME)

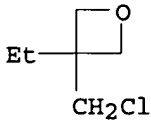


RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

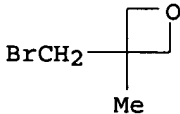
L4 ANSWER 4 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:514289 CAPLUS
DN 137:63169
TI Preparation of ethers having oxetane ring without using **phase-transfer** catalysts
IN Kato, Hisao; Kuriyama, Akira
PA Toa Gosei Chemical Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 2002193960	A2	20020710	JP 2000-389925 JP 2000-389925	20001222 20001222
OS	CASREACT 137:63169				
AB	Title ethers are prepared by treatment of resorcin with 3-halomethyl-3-alkyloxetane with continuously or intermittently supplying alkalies to the reaction mixts. and with removing H2O from the mixts. Thus, aqueous KOH was dropwise added to a mixture of resorcin and 3-chloromethyl-3-ethyloxetane at 120° and 150 mmHg over 7 h with removing H2O to give 91.7% resorcin ether.				
IT	2177-22-2, 3-Chloromethyl-3-ethyloxetane RL: RCT (Reactant); RACT (Reactant or reagent) (preparation of resorcin ethers having oxetane ring without using phase-transfer catalysts)				
RN	2177-22-2 CAPLUS				
CN	Oxetane, 3-(chloromethyl)-3-ethyl- (7CI, 8CI, 9CI) (CA INDEX NAME)				



L4	ANSWER 5 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN				
AN	2002:481328 CAPLUS				
DN	137:185947				
TI	Synthesis, Characterization, and Unusual Surface Activity of a Series of Novel Architecture, Water-Dispersible Poly(fluorooxetane)s				
AU	Kausch, Charles M.; Leising, Jane E.; Medsker, Robert E.; Russell, Vernon M.; Thomas, Richard R.; Malik, Aslam A.				
CS	OMNOVA Solutions Inc., Akron, OH, 44305-4489, USA				
SO	Langmuir (2002), 18(15), 5933-5938 CODEN: LANGD5; ISSN: 0743-7463				
PB	American Chemical Society				
DT	Journal				
LA	English				
AB	A series of water-dispersible, surface-active poly(fluorinated oxetane)s was prepared by ring-opening polymerization of fluorinated oxetane monomers using Lewis acid catalysis. The fluorinated oxetane monomers are made by phase-transfer catalytic reaction of a fluorinated alc. with 3-bromomethyl-3-methyloxetane. Water dispersibility was introduced by conversion of the diol-terminated α,ω -(dihydroxy)poly(fluorinated oxetanes) into diammonium salts of α,ω -sulfate esters. The poly(fluorinated oxetane) salts exhibit unusually low surface tensions for materials based on a pendant trifluoro- or pentafluoroalkyl group. At a critical micelle concentration of .apprx.10 ⁻⁵ mol/L (.apprx.10 ⁻³ weight %), surface tensions of .apprx.20-30 mN/m are obtained. The novel architecture of the poly(fluorinated oxetane) salts is thought to be responsible for the anomalous surface activity.				
IT	78385-26-9, 3-Bromomethyl-3-methyloxetane RL: RCT (Reactant); RACT (Reactant or reagent) (synthesis, characterization, and unusual surface activity of a series of novel architecture, water-dispersible poly(fluorooxetane)s)				
RN	78385-26-9 CAPLUS				
CN	Oxetane, 3-(bromomethyl)-3-methyl- (9CI) (CA INDEX NAME)				

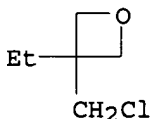


RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2002:359871 CAPLUS
DN 136:355150
TI Preparation of ethers from 3-alkyl-3-hydroxymethyloxetane without using
phase-transfer catalysts
IN Kato, Hisao; Ito, Tadakazu; Kuriyama, Akira
PA Toa Gosei Chemical Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002138084	A2	20020514	JP 2000-334173 JP 2000-334173	20001101 20001101

OS CASREACT 136:355150
AB Ethers are prepared by (A) addition of alkali to a mixture of
3-alkyl-3-hydroxymethyloxetane and primary halide with removing H₂O, or by
(B) addition of 3-alkyl-3-hydroxymethyloxetane to a mixture of primary halide
and alkali with removing water. Thus, aqueous KOH was dropwise added to a
mixture of 3-chloromethyl-3-ethyloxetane, 3-ethyl-3-hydroxymethyloxetane,
and MePh under reflux with removing water to give the corresponding ether
with 75.6% reactivity and 89.1% selectivity.
IT 2177-22-2, 3-Chloromethyl-3-ethyloxetane
RL: RCT (Reactant); RACT (Reactant or reagent)
(etherification of 3-alkyl-3-hydroxymethyloxetane)
RN 2177-22-2 CAPLUS
CN Oxetane, 3-(chloromethyl)-3-ethyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:111299 CAPLUS
DN 134:162910
TI Preparation of 3-chloromethyloxetanes
IN Ito, Tadakazu; Kuriyama, Akira
PA Toa Gosei Chemical Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001039961	A2	20010213	JP 1999-210175 JP 1999-210175	19990726 19990726

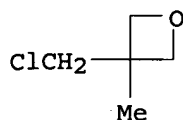
OS CASREACT 134:162910
AB Title compds. are prepared by dehydrochlorination of 2,2-
bis(chloromethyl)alkan-1-ol or their esters in the presence of
phase transfer catalysts in aqueous solution or suspension of
alkalies, separation of organic phase from water phase, extraction of the catalysts
with water, and reuse of the catalysts in water. 2,2-
Bis(chloromethyl)propan-1-ol was dehydrochlorinated in the presence of
tetra-n-butylammonium bromide in aqueous NaOH at 80-100° for 4 h to
give 91% 3-chloromethyl-3-ethyloxetane. Tetra-n-butylammonium bromide was
recovered from washing water with 74% recovery.
IT 822-48-0P, 3-Chloromethyl-3-ethyloxetane
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP

(Preparation)

(preparation of chloromethyloxetanes by dehydrochlorination of bis(chloromethyl)alkanols)

RN 822-48-0 CAPLUS

CN Oxetane, 3-(chloromethyl)-3-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 8 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 2000:199323 CAPLUS

DN 132:237514

TI Manufacture of bis(3-alkyloxetan-3-ylmethyl) ethers

IN Ito, Tadakazu; Sasaki, Hiroshi; Kuriyama, Akira

PA Toa Gosei Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

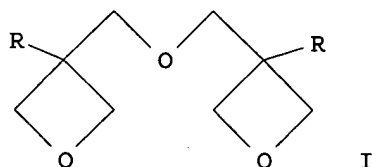
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000086646	A2	20000328	JP 1998-274270	19980911
				JP 1998-274270	19980911

OS MARPAT 132:237514

GI



AB Title compds. I (R = C1-10 alkyl), useful as monomers (no data), are manufactured by reaction of 3-halogenomethyl-3-alkyloxetanes in aqueous alkaline solns. or dispersions in the presence of **phase-transfer** catalysts. Thus, a mixture of 3-chloromethyl-3-ethyloxetane, 3-hydroxymethyl-3-ethyloxetane, Bu4PBr, and KOH was heated at 120° for 8 h to give 84.0% I (R = Et).

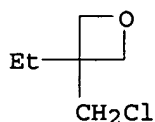
IT 2177-22-2, 3-Chloromethyl-3-ethyloxetane

RL: RCT (Reactant); RACT (Reactant or reagent)

(manufacture of bis(alkyloxetanylmethyl) ethers from alkyl(halomethyl)oxetanes)

RN 2177-22-2 CAPLUS

CN Oxetane, 3-(chloromethyl)-3-ethyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 9 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1998:749724 CAPLUS

DN 129:316133

TI Method for preparing 3-(chloromethyl)-3-alkyloxetanes
 IN Ito, Naokazu; Hirose, Toshiro
 PA Toagosei Co., Ltd., Japan
 SO Fr. Demande, 23 pp.
 CODEN: FRXXBL
 DT Patent
 LA French
 FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2760011	A1	19980828	FR 1998-493	19980119
	FR 2760011	B1	20000218		
				JP 1997-24563	A 19970124
				JP 1997-31384	A 19970131
				JP 1997-196450	A 19970707
	JP 10204071	A2	19980804	JP 1997-24563	19970124
	JP 3367549	B2	20030114		
	JP 10212282	A2	19980811	JP 1997-31384	19970131
	JP 11029562	A2	19990202	JP 1997-196450	19970707

PATENT FAMILY INFORMATION:

FAN 1998:498636

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10204071	A2	19980804	JP 1997-24563	19970124
	JP 3367549	B2	20030114		
	FR 2760011	A1	19980828	FR 1998-493	19980119
	FR 2760011	B1	20000218		
				JP 1997-24563	A 19970124
				JP 1997-31384	A 19970131
				JP 1997-196450	A 19970707
	US 5886199	A	19990323	US 1998-10508	19980122
				JP 1997-24563	A 19970124
				JP 1997-31384	A 19970131
				JP 1997-196450	A 19970707

FAN 1998:512470

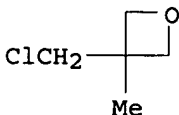
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	FR 2760011	A1	19980828	FR 1998-493	19980119
	FR 2760011	B1	20000218		
				JP 1997-24563	A 19970124
				JP 1997-31384	A 19970131
				JP 1997-196450	A 19970707
	US 5886199	A	19990323	US 1998-10508	19980122
				JP 1997-24563	A 19970124
				JP 1997-31384	A 19970131
				JP 1997-196450	A 19970707

AB Title compds. are prepared by dehydrochlorination of 1,1-bis(chloromethyl)-1-(hydroxymethyl)alkanes or elimination of acid chloride from a 1,1-bis(chloromethyl)-1-(hydroxymethyl)alkane ester in an aqueous alkaline solution or suspension, optionally in the presence of a **phase-transfer** ammonium catalyst or an anion-exchange resin. Thus, heating 51 g of 1,1-bis(chloromethyl)-1-(hydroxymethyl)propane 10% aqueous NaOH gave an 81% yield of 3-(chloromethyl)-3-ethyloxetane.

IT 822-48-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)

RN 822-48-0 CAPLUS

CN Oxetane, 3-(chloromethyl)-3-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



AN 1998:512470 CAPLUS
DN 129:175547
TI Preparation of 3-chloromethyl-3-alkyloxetanes
IN Ito, Tadakazu; Hirose, Toshiyoshi
PA Toa Gosei Chemical Industry Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 5 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 3

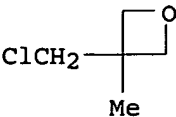
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PI	JP 10212282	A2	19980811	JP 1997-31384	19970131
	FR 2760011	A1	19980828	FR 1998-493	19980119
	FR 2760011	B1	20000218		
				JP 1997-24563	A 19970124
				JP 1997-31384	A 19970131
				JP 1997-196450	A 19970707
	US 5886199	A	19990323	US 1998-10508	19980122
				JP 1997-24563	A 19970124
				JP 1997-31384	A 19970131
				JP 1997-196450	A 19970707

PATENT FAMILY INFORMATION:

FAN	1998:498636				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 10204071	A2	19980804	JP 1997-24563	19970124
	JP 3367549	B2	20030114		
	FR 2760011	A1	19980828	FR 1998-493	19980119
	FR 2760011	B1	20000218		
				JP 1997-24563	A 19970124
				JP 1997-31384	A 19970131
				JP 1997-196450	A 19970707
	US 5886199	A	19990323	US 1998-10508	19980122
				JP 1997-24563	A 19970124
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				JP 1997-196450	A 19970707

FAN	1998:749724				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	FR 2760011	A1	19980828	FR 1998-493	19980119
	FR 2760011	B1	20000218		
				JP 1997-24563	A 19970124
				JP 1997-31384	A 19970131
				JP 1997-196450	A 19970707
	JP 10204071	A2	19980804	JP 1997-24563	19970124
	JP 3367549	B2	20030114		
	JP 10212282	A2	19980811	JP 1997-31384	19970131
	JP 11029562	A2	19990202	JP 1997-196450	19970707

OS CASREACT 129:175547
AB Title compds. are prepared by dehydrochlorination or deesterification of 1,1-bis(chloromethyl)-1-hydroxymethylalkanes or their carboxylic acid esters in the presence of **phase transfer** catalysts in aqueous solns. or aqueous suspensions of alkalies. 1,1-Bis(chloromethyl)-1-hydroxymethylpropane was treated with Bu₄NBr in a NaOH aqueous solution at 80° for 3 h to give 92% 3-chloromethyl-3-ethyloxetane.
IT **822-48-0P**, 3-Chloromethyl-3-methyloxetane
RL: IMF (Industrial manufacture); SPN (Synthetic preparation); PREP (Preparation)
(preparation of chloromethylalkyloxetanes by cyclization of bis(chloromethyl)hydroxymethylalkanes using **phase transfer** catalysts in alkali aqueous solns.)
RN 822-48-0 CAPLUS
CN Oxetane, 3-(chloromethyl)-3-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 11 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1996:567244 CAPLUS
DN 125:196663
TI Mono-substituted fluorinated oxetane monomers from 3-haloalkyl-3-alkyloxetanes, copolymers and prepolymers, and elastomers
IN Malik, Aslam A.; Manser, Gerald E.; Archibald, Thomas G.; Duffy-Matzner, Jetty L.; Harvey, William L.; Grech, Gary J.; Carlson, Roland P.
PA Aerojet-General Corporation, USA
SO PCT Int. Appl., 136 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	WO 9621657	A1	19960718	WO 1996-US1077	19960116
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	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5807977	A	19980915	US 1995-371914	A 19950112
				US 1995-371914	19950112
				US 1992-911461	B2 19920710
				US 1993-80614	B1 19930621
				US 1994-206618	B2 19940307
	EP 811004	A1	19971210	EP 1996-903699	19960116
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
				US 1995-371914	A 19950112
				WO 1996-US1077	W 19960116
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				WO 1996-US1077	W 19960116

PATENT FAMILY INFORMATION:

FAN	1994:484315				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	DE 4323307	A1	19940127	DE 1993-4323307	19930712
				US 1992-911461	A 19920710
				US 1993-80614	A 19930621
	GB 2269816	A1	19940223	GB 1993-14107	19930708
	GB 2269816	B2	19961030		
				US 1992-911461	A 19920710
				US 1993-80614	A 19930621
	CA 2100218	AA	19940111	CA 1993-2100218	19930709
				US 1992-911461	A 19920710
	FR 2694297	A1	19940204	FR 1993-8517	19930709
	FR 2694297	B1	19950707		
				US 1992-911461	A 19920710
				US 1993-80614	A 19930621
	JP 06263867	A2	19940920	JP 1993-170179	19930709
	JP 3335427	B2	20021015		
				US 1992-911461	A 19920710
				US 1993-80614	A 19930621

FAN	1998:623987				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	US 5807977	A	19980915	US 1995-371914	19950112
				US 1992-911461	B2 19920710
				US 1993-80614	B1 19930621
				US 1994-206618	B2 19940307
	CA 2100218	AA	19940111	CA 1993-2100218	19930709
				US 1992-911461	A 19920710
	US 5668250	A	19970916	US 1995-483219	19950607
				US 1992-911461	B2 19920710

			US 1993-80614	B1 19930621
			US 1994-206618	B2 19940307
			US 1995-371914	B3 19950112
US 5703194	A	19971230	US 1995-483220	19950607
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CA 2210204	AA	19960718	CA 1996-2210204	19960116
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WO 9621657	A1	19960718	WO 1996-US1077	19960116
			W: CA, JP, US	
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			US 1995-371914	A 19950112
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JP 11500422	T2	19990112	JP 1996-521881	19960116
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			US 1992-911461	B2 19920710
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			US 1994-206618	B2 19940307
			US 1995-371914	A3 19950112
			US 1995-477168	A1 19950607
JP 2004155767	A2	20040603	JP 2003-326937	20030918
			US 1995-371914	A 19950112
			JP 1996-521881	A3 19960116
US 2004087759	A1	20040506	US 2003-678663	20031003

US 1992-911461	B2 19920710
US 1993-80614	B1 19930621
US 1994-206618	B2 19940307
US 1995-371914	A3 19950112
US 1995-477168	A1 19950607
US 2000-520815	A1 20000308

OS MARPAT 125:196663

AB The title monomers having fluorinated alkoxyethylene side-chains are prepared in high yield by the reaction of fluorinated alkoxides with either 3-halomethyl-3-methyloxetane premonomers, generally 3-haloalkyl-3-alkyloxetanes as starting materials, or aryl sulfonate derivs. of 3-hydroxymethyl-3-methyloxetane premonomers, optionally using phase transfer catalyst. Preparation of a mono-substituted 3-bromomethyl-3-methyloxetane premonomer via a simple, high yield process is amenable to com. scale-up. The fluorinated oxetane monomers are useful for the production of fluorinated prepolymers and elastomers which exhibit an improved water contact angle on a fluorinated oxetane elastomer as compared to a Teflon surface. The reaction of 2,2,3,3,4,4,4-heptafluorobutan-1-ol and 3-hydroxymethyl-3-methyloxetane p-toluenesulfonate at 75-85° for 30 h in the presence of NaH/DMF gave 3-(2,2,3,3,4,4,4-heptafluorobutoxymethyl)-3-methyloxetane (I) from purification of the oil. I polymerization was initiated by 1,4-butanediol in the presence of BF₃-Et₂O to give a product having number-average mol. weight 4417 and glass transition temperature -45°, which was further polymerized with Desmodur W and Isonol 93 crosslinker to give a polyurethane having surface energy 13.2 ergs/cm², vs. 18.5 ergs/cm² for Teflon.

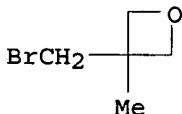
IT 78385-26-9P, 3-Bromomethyl-3-methyloxetane

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(fluorinated oxetane monomers for fluoro polyether prepolymers, and elastomers)

RN 78385-26-9 CAPLUS

CN Oxetane, 3-(bromomethyl)-3-methyl- (9CI) (CA INDEX NAME)



L4 ANSWER 12 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1996:392139 CAPLUS

DN 125:115461

TI Solvent-free process for the synthesis of energetic oxetane monomers

IN Malik, Aslam A.; Manser, Gerald E.; Carson, Roland P.; Archibald, Thomas G.

PA Aerojet-General Corp., USA

SO U.S., 8 pp.

CODEN: USXXAM

DT Patent

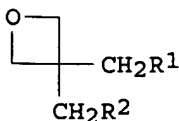
LA English

FAN.CNT 1

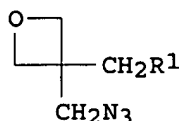
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5523424	A	19960604	US 1994-334708	19941104
				US 1994-334708	19941104

OS MARPAT 125:115461

GI



II



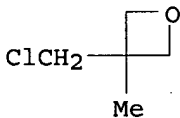
III

AB 3,3-Bis(azidomethyl)oxetane (I) is manufactured by reaction of oxetanes II (R1, R2 = tosylate, mesylate, or halo) with aqueous solns. of metallic azide in the presence of **phase-transfer** catalysts, and oxetanes III (R1 = H, lower alkyl, alkoxy, OH, NF2, ONO2, or NO2) are manufactured by reaction of II (R1 = same as in III, R2 = tosylate, mesylate, or halo) with aqueous solns. of metallic azide in the presence of **phase-transfer** catalysts. I and III can be polymerized to form homopolymers and copolymers with load bearing polyether backbones and highly energetic pendant groups (no data).

IT 822-48-0, 3-Chloromethyl-3-methyloxetane
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (water-based process for the synthesis of mono- and bis(azidomethyl)oxetane monomers using **phase-transfer** catalysts)

RN 822-48-0 CAPLUS

CN Oxetane, 3-(chloromethyl)-3-methyl- (7CI, 8CI, 9CI) (CA INDEX NAME)



L4 ANSWER 13 OF 13 CAPLUS COPYRIGHT 2005 ACS on STN

AN 1990:21367 CAPLUS

DN 112:21367

TI Polymer reactions of the pendant alkyl bromides of soluble and insoluble polyoxetanes for the preparation of chemically modified polyethers

AU Motoi, Masatoshi; Suda, Hiroshi; Kijima, Masato; Doi, Tetsuya; Nakagawa, Tsuyoshi; Kanoh, Shigeyoshi

CS Fac. Technol., Kanazawa Univ., Kanazawa, 920, Japan

SO Polymer Journal (Tokyo, Japan) (1989), 21(6), 451-65
 CODEN: POLJB8; ISSN: 0032-3896

DT Journal

LA English

AB Soluble and insol. polyoxetanes with ω-brom-2-oxaalkyl side chains of CH2O(CH2)nBr (n = 4 or 6) were prepared by cationic ring-opening polymerization of 3-(ω-bromo-2-oxaalkyl)-3-methyloxetanes and by their co- or terpolymns. with other oxetanes and/or crosslinking agents such as bisoxetanes X-CH2O(CH2)nOCH2-X (X = 3-methyl-3-oxetanyl and n = 4 or 6). The bromine at the 2-oxapolymethylene-spacer end of the soluble polymers were converted into the corresponding functional groups by polymer reactions with several nucleophiles such as anions of carboxylates and alkoxides, and amines. The pendant acetoxyl and cyclic acetal groups, thus introduced, were hydrolyzed to give the corresponding hydroxyl groups. Quaternization of the pendant bromides of the uncrosslinked and crosslinked polyoxetanes took place with nicotinamide or tributylamine. The product polymers with a tetraalkylammonium moiety showed catalytic activity for a **phase-transfer** catalytic reaction of alcs. and alkyl bromides giving ether compds. in satisfactory yields. Electrophilic substitutions such as bromination, nitration, and acylation were examined in pendant aromatic rings of poly(3-benzyloxetane). The electrophilic substitutions occurred at 70 to 90g, although some decrease in the mol. weight of the product polymer was observed owing to ether cleavage of the polymer chain under acidic conditions.

IT 124221-80-3P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (preparation and cationic ring-opening polymerization of)

RN 124221-80-3 CAPLUS

CN Oxetane, 3-methyl-3-(phenylmethyl)- (9CI) (CA INDEX NAME)

